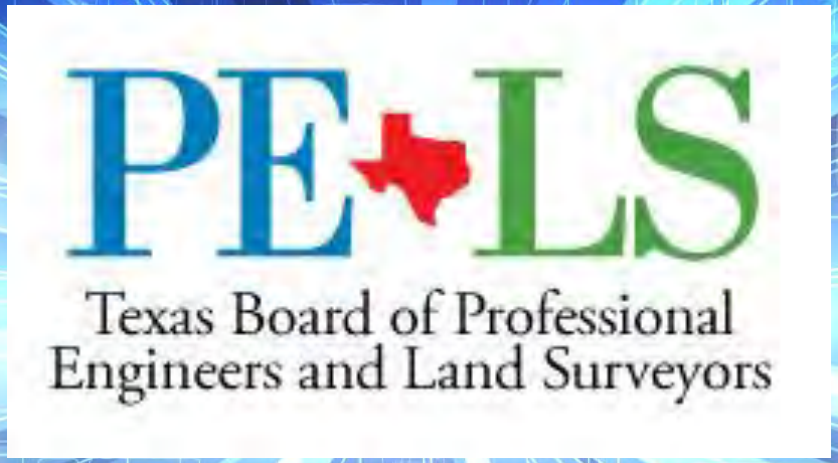


Professional Engineering Practice Update and Ethics
February 2020

PRESENTERS

- **Lance Kinney, Ph.D., P.E.**, Executive Director
    - Lance.Kinney@pels.texas.gov
- **Michael Sims, P.E.,** Director of Compliance & Enforcement
    - Michael.Sims@pels.texas.gov
- **George Hartmann, P.E.**, Licensing Project Manager
    - George.Hartmann@pels.texas.gov

Presenter

Lance Kinney, Ph.D., P.E.

- Executive Director
- Lance.Kinney@pels.texas.gov

Webinar Info

- Webinar audio can be through your computer speakers.
- All attendees will be in Listen-only mode.
- During the presentation, use the Question feature in the webinar software, not the chat feature or the hand raising feature.
- If there are questions, not addressed, please email the presenter.
- We will be using Polls during the presentation.
- A pdf of the slides is available on the TBPELS website.

WEBINAR DOCUMENTATION

Documentation of attendance for Continuing Education purposes will be the follow up email from the Webinar system. **No certificate will be issued**.

If registered as a group, please keep and distribute a sign-in sheet for all attendees with the follow up email from the Webinar system.

AGENDA

- About the Board
- Core Functions
  - Licensing
  - Enforcement
- Law and Rules
  - Agency Merger - Surveyors
- Board Activities

Website and Social Media

http://pels.texas.gov

- Facebook: Texas Board of Professional Engineers and Land Surveyors
- Twitter: TBPELS_Exec
- LinkedIn: Texas Board of Professional Engineers and Land Surveyors
- YouTube: https://www.youtube.com/channel/UCm0YTnjR3StveBxWhCT4MiA

Texas Board of Professional Engineers and Land Surveyors

Nine Members - Appointed by Governor

- 5 Licensed Professional Engineers
- 1 Registered Professional Land Surveyor
- 3 Public Members
- 1 Ex-Officio Representative from GLO
- Standard term is 6 years

TBPELS

Dr. Sina Nejad, P.E., P.Eng.	**Beaumont – Chairman**
Elvira Reyna (public member)	Denton County – Vice Chair
Catherine Norwood, P.E.	Midland - Secretary
Albert Cheng (public member)	Houston – Treasurer
Lamberto “Bobby” Balli, P.E.	San Antonio
Ademola Adejokun, PE	Arlington
Rolando Rubiano, PE	Harlingen
Kiran Shah (public member)	Richmond
Coleen Johnson, R.P.L.S.	Austin
Mark Neugebauer, R.P.L.S., L.S.L.S. (GLO Rep)	Austin

TBPELS Staff

36 Staff members, Austin

Lance Kinney, PhD, PE - Executive Director

Michael Sims, PE - Compliance & Enforcement

Rick Strong, PE - Licensing & Registration

Janet Sobieski - Operations

TBPELS Mission

Public Safety & Welfare

Our mission is to protect the health, safety and welfare of the people of Texas through the licensure and registration of qualified individuals as professional engineers and land surveyors, compliance with applicable laws and rules, and education about engineering and land surveying.

History – New London

- Engineering License Created by Texas Legislature (45R) in 1937
- New London School Explosion
  - 300 students and teachers killed
  - Result of improperly designed mechanical and electrical devices
- Established a Board to regulate the practice of engineering through licensing and rules of practice

1937

BOARD PRIMARY FUNCTIONS

Since 1937 -

- **License** Qualified Engineers
- **Enforce** Engineering Practice Act

Since 2003 –Requiring Firm Registration

Since 2005 -Requiring Continuing Education

Now

- **Educate** – PEs, Officials, Potential PEs, Public

TBPELS History

Over 136,800 Texas PE licenses granted since 1937.
Currently over 67,000 PE licensees.

Surveying Board was established in 1955.
Over 6,790 Texas RPLS registrations granted since 1955.
Currently over 2,900 Registered Surveyors.

Professional Licensing

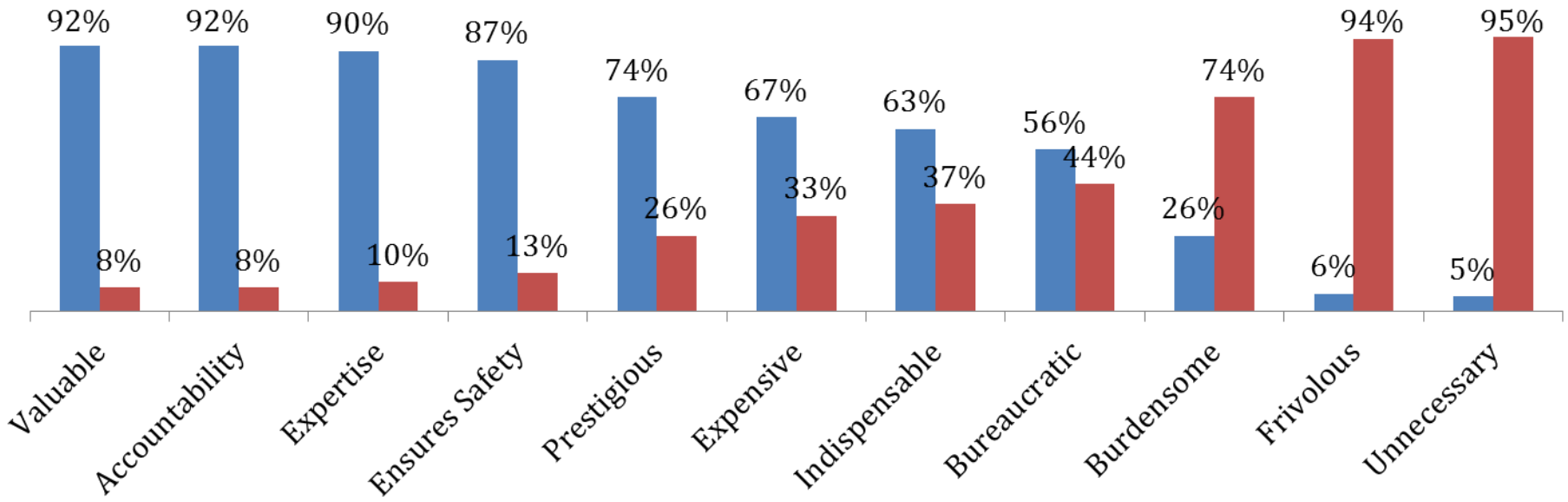
- Protection of the Public
- Ethical expectations
- Competence
  - Initial Qualifications
    - Education, Experience, Examinations
  - Staying Current
    - Continuing Education
- Professionalism

PROFESSIONAL LICENSING

Fields that are regulated and licensed vary among individual states. Among regulated fields are health care professionals (medical doctors, nurses); psychologists; lawyers; teachers; engineers; …- *Wikipedia*

- Most of these fields impact the public one person at a time.
- The work done by engineers generally has the potential to affect ***many.***

Public Perception - Licensure

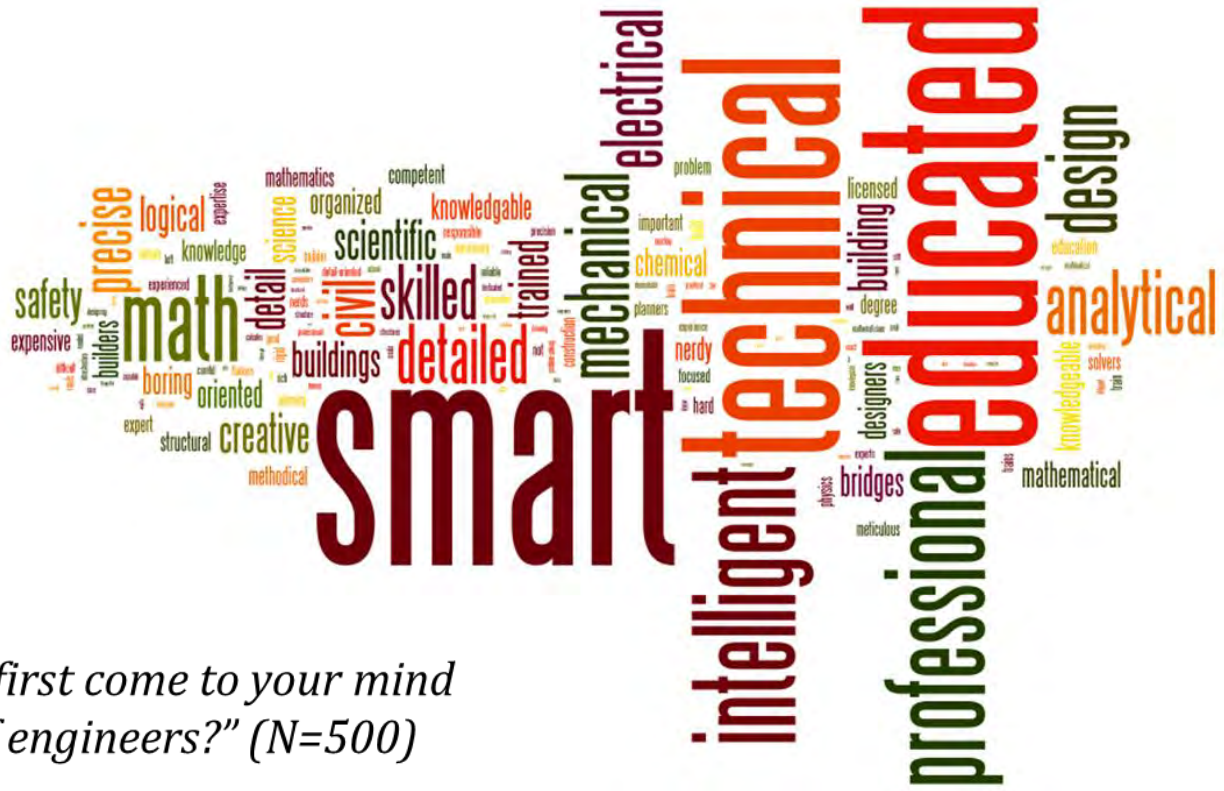


Please "click on" and "drag" each of these terms...based on whether you feel it describes professional licensure or not. (N=874)

Describes Doesn't Describe

Survey by McKinley Advisors

Public Perception of Engineers



"What three words first come to your mind when you think of engineers?" (N=500)

Survey by McKinley Advisors

Public Perception of Engineers

Please tell me how you would rate the honesty and ethical standards of people in these different fields -- very high, high, average, low or very low? (Gallup 2016)

Profession	% Very High / High
Nurses	84%
Military Officers	71%
Pharmacists	67%
Engineers	**65%**
Medical Doctors	65%
Police Officers	58%

PROFESSIONAL LICENSING - PE

System to Protect the Public:

- Sets the minimum standards for licensure as a Professional Engineer
- Sets continuing practice and competence standards
- Sets ethical and professional standards
- Compliance with these standards of professional practice
- Standards for indicating competence (titles, seals, etc.)
- Prevents unqualified individuals from offering or practicing where it could endanger the public

Presenter

Michael Sims, P.E.

- Director of Compliance & Enforcement
- Michael.Sims@pels.texas.gov

Licensing Competence

- Competence is gained by Education **and** Experience; Measured by FE and PE examinations
- Texas uses nationally accepted standards, but considers each application independently.
- Texas does not license by discipline, but Professional Engineers must not practice outside of their competence.
  - §137.59(a) Engineers shall practice only in their areas of competence.

Engineering Ethics

- Protection of Public Health, Safety, Welfare
- Ethical responsibilities and expectations
  - Avoid Conflicts of Interest
  - Be a Faithful Agent
  - Be prepared to have a dissenting opinion, if necessary
  - Obligation to be aware of violations of the Act.

How does this protect the public?

  - We are expected to know the right thing to do and to do the right thing in the practice of engineering.

Professionalism

- Protection of Public Health, Safety, Welfare
- Communication
  - Honesty
  - Clarity (not misleading)
  - Respectful of all parties
  - Maintain Public Trust
  - Timely communication with the TBPELS

How does this protect the public?

  - We are expected to be complete and correct in the practice of engineering.

Licensing
Ethics / Professionalism

- Multiple reference statements from other licensed engineers to vouch for character and engineering experience claimed.
- Exam on Texas Law and Rules
- Fingerprint-based CHRC
- Continuing Education related to Ethics after licensure

COMPLIANCE & ENFORCEMENT

Technical / Ethical / Professional

Approximately 600 Cases opened last year

– 67,029 licensed PEs (03/2019)

- About 65% resolved with Voluntary Compliance
- Board action includes range of action up to revocation
- Less than 10% Dismissed

Conflict of Interest

scenario

George is a graduate mechanical engineer, and Engineer in Training (EIT) for an engineering firm under the supervision of a licensed professional engineer.

The firm is contemplating submitting a qualifications package for the mechanical design related to a multi-story hospital addition. George's mother happens to be a prominent physician and a liaison official of the hospital board and has some influence in the final selection of the engineering firm that gets this project.

Conflict of Interest

scenario

George discusses the matter with his mother and based on their conversation he feels sure that she would not grant any favors because of his involvement in the project.

George recognizes that a conflict of interest may exist and decides to inform his supervisor.

He tells George not to worry and says he plans to submit the firm's qualifications for consideration, making no mention of George's employment in the submittal.

Conflict of Interest

scenario

True or False -
George's supervisor fulfilled all of actions expected under the Texas Engineering Practice Act and Board Rules?

False.

Conflict of Interest

scenario

What should the PE do?

A. Proceed with the response.

B. Ask George's mother to officially recuse herself.

C. Remove George from the project.

D. Notify all parties of the potential situation.

E. Not to respond to the bid request.

Conflict of Interest

scenario

Best Answer:

D. – Board Rule 137.57(c) The engineer shall disclose a potential conflict of interest to a potential or current client or employer upon discovery of the possible conflict.

137.57(d) The notification must be **in writing** and acknowledged by the parties

Enforcement - Filing A Complaint

- Mail, email, phone, facsimile – all are acceptable for initial contact
  - Anonymous complaints are accepted
- A complaint form or detailed letter/email is needed to cover all the bases
  - Forms can be found Online
- Provide specific instances of violation
- Provide evidence to show probable cause

Professionalism

scenario

A P.E. was hired by a property owner to prepare a site plan for a rental property. After attempting to access the property, the renters refused to work with the engineer.

The P.E. discussed the issue with his client.

The client (not an engineer) provided his own version of the site plan to the PE.

The P.E. then signed and sealed the plans on the spot and gave them back to the client.

Professionalism

scenario

This was a violation of:

A. **§137.33(b)** - License holders shall only seal work done by them or performed under their direct supervision.

B. **§137.57(b)(3)** - The issuance of oral or written assertions in the practice of engineering shall not be: misleading or shall not in any manner whatsoever tend to create a misleading impression.

C. **§137.63(a)** - Engineers shall engage in professional and business activities in an honest and ethical manner…

D. **All of the above.**

Professionalism

scenario

Answer: All of these

A. **§137.33(b)** – It is not enough to review and seal the work of another person. A PE can only seal work that he or she has personally generated or work that was generated under his or her direct supervision.

B. **§137.57(b)(3)** – By sealing work that is not his or hers, a PE is giving a misleading impression to the public

C. **§137.63(a)** – Passing off another person's work as your own would be considered dishonest.

Enforcement Factors

Board Actions may differ

Factors considered in each case review:

1) the seriousness of the violation, including the nature, circumstances, extent, and gravity of the prohibited act and the hazard or potential hazard created to the health, safety, or economic welfare of the public;
2) the history of prior violations of the respondent;
3) the severity of penalty necessary to deter future violations;

Enforcement Factors

Factors considered in each case review:

4) efforts or resistance to efforts to correct the violations;
5) the economic harm to property or the environment caused by the violation; and
6) any other matters impacting justice and public welfare, including any economic benefit gained through the violations.

Board Actions

- Reprimands (Formal and Informal)
- Suspension (possible probation)
- Refuse to Renew
- Revocation
- $5,000 per violation per day
- Cease and Desist Orders
- Emergency Suspension

Additional Enforcement Options

- Ethics Courses
  - National Institute for Engineering Ethics (Texas Tech)
- Technical Courses
- Restitution
- Practice limitations
- Civil or Criminal cases
  - Assisting Jurisdictional Authorities

Enforcement

By law, all violations, except informal reprimands, must be published

- On TBPELS website by Board Meeting Date
- Added to NCEES Enforcement Exchange (national database)
- Published in the newsletter which is mailed at least annually and quarterly E-newsletter emails

Presenter

George Hartmann, P.E.

- Licensing Project Manager
- George.Hartmann@pels.texas.gov

Preventing Complaints

- CLEAR:
  - Communication (between all parties)
  - Contract (expectations and responsibilities)
  - Calculations and designs (be prepared to support)
- Keep your Documentation

Most importantly – know the law, and contact us if you have a question!

Responsibility

scenario

Engineer A designs a structure under the supervision of Engineer B. Engineer B properly signs and seals the plans and provides them to the client.

During construction, the contractor recognizes a potential cost saving if the design can be altered by using a different connection type.

The contractor approaches the design firm about the change. They want a response as soon as possible.

Responsibility

scenario

Since Engineer A was the original designer, he gets the modification request. The proposed modification is not something he has seen before. Since other staff is unavailable, he runs the calculations and model as best he can.

He asks other staff to review it, but no one else has time.

He sends the modified design to Engineer B who signs and seals the revisions and gives them to the client and contractor.

Responsibility

scenario

During construction, there was a failure of the modified connection. After analysis, it was determined that Engineer A miscalculated the loads and the structure was underdesigned.

Responsibility

scenario

Who violated Board rules?

A. Engineer A – He is a licensed PE
B. Engineer B – He is a licensed PE who signed and sealed the plans.
C. Neither. The Firm will be held responsible.
D. Both
E. None of the above.

Responsibility

scenario

Best Answer: D

Although Engineer A did not sign and seal the final drawings, he is a licensed PE and expected to be competent. **Board Rule 137.59**

Engineer B signed and sealed the documents, so he is ultimately responsible for work under his supervision. **Board Rule 137.33**

Obligations

Which of the following are required by the Texas Engineering Practice Act and Board Rules for all licensed engineers offering engineering in Texas:

A. Obtain a seal using the format prescribed by Rule.
B. Obtain Errors & Omissions / Liability Insurance.
C. Register as an Engineering Firm or be associated with an existing Firm.
D. Register with the Texas Secretary of State.
E. All of the above.

Obligations

A. **Obtain a seal using the format prescribed by Rule.**
B. Obtain E&O Insurance.
C. **Register as an Engineering Firm or be associated with an existing Firm.**
D. Register with the Texas Secretary of State.

Obligations

- Although it is often a good idea based on the practice, professional liability insurance is not required by the Texas Engineering Practice Act or Board Rules.

- All PEs offering or performing engineering in Texas must have a registered firm (even as an individual.

Continuing Education for PE

- 15 hours
  - Must include 1 hour of Ethics
  - May include up to 5 hours of self-study
  - May include up to 3 hours of **Educational Outreach**
- Random audits ongoing
- Keep documentation for 3 years
- Fines as high as $5,000; separate violations for claiming Continuing Ed without documentation or not responding to Board.

Continuing Education for PE

Exemptions - must be claimed when you renew

- 1st renewal if PE exam was within a year of licensure
- Active duty military deployment
- Disability
- Inactive status
- Being over 65 is not an exemption

- See Board Rule 137.17 for all specifics on Continuing Ed

Continuing Education

Question

A Texas PE who practices in the Mechanical field sees an ad for an OSHA course and wants to know if he can claim credit.

A. He can claim it if it is from an Approved Course Provider.
B. He can claim it if it relates to his practice.
C. He should call the Board and ask.
D. None of the above

Continuing Education

Question

Best Answer B

- Texas Board rules do not require courses from an Approved Provider list.
- TBPELS staff does not pre-approve courses for engineers.
- A Texas PE decides if a course is related to his or her practice and has “educational, technical, ethical, or managerial content”
- Keep in mind the goal of the Continuing Education program
- Think about Continuing Education throughout the year

Continuing Education

Question

The course he wants to take is online.

A. He can claim it if he gets formal documentation showing the date, duration and course title from the provider.
B. He can claim it as self-study hours even if he doesn't get formal documentation.
C. He can't use online courses under Texas rules.
D. He can only claim up to 5 hours of online courses.

Continuing Education

Question

Best Answer A and B

- Texas rules allow the use of online courses. If documentation is provided, it is treated the same as classroom hours.
- Documentation is ideally completion certificates, but could also include “self-certification forms, sign-in sheets, receipts, agendas, conference flyers or other documentation that shows you actually attended the claimed activity”.
- Self-study hours are for any educational activity that does not have complete documentation (limited to 5 hours per year).

Continuing Education

- NCEES system for Continuing Professional Competence (CPC) tracking and reporting
  - No fee to register and create an account
  - Upload documentation
  - Report as needed for different Boards

– http://ncees.org/cpc/

Policy Advisory Opinions

- Provision Added to TEPA in 2003
- Allows Board to develop formal written interpretations of law and rules for specific or hypothetical 'Gray Areas'
- ~50 interpretations for a variety of subjects
  - http://engineers.texas.gov/policy.htm
- How to submit PAO Request / Forms at:
  - http://engineers.texas.gov/Policy_Advisory.htm

TBPELS – Technical Experts

We Need Your Help – Both Engineering and Surveying

- TBPELS keeps a list of qualified Technical Experts to be used to review Enforcement cases.
  - Volunteer/Pro bono or Service Contract as appropriate
  - Possible Continuing Education credit

Find out More:

- Board Rule 139.23
- http://www.engineers.texas.gov/technical_experts.htm

Presenter

Lance Kinney, Ph.D., P.E.

- Executive Director
- Lance.Kinney@pels.texas.gov

Legislative News and Rulemaking

TBPELS Agency Merger Update

September 2019

86th Legislative Session (2019)

- HB1523 – TBPLS Sunset Bill
  - Signed by Governor
  - Effective Date Sept 1, 2019
  - Created Texas Board of Professional Engineers and Land Surveyors (TBPELS)
  - Merges TBPLS operations into TBPE
  - 1 year for completion of transfers
  - Board Composition: 9 total; 5 PE, 1 Surveyor, 3 Public
  - +1 GLO (non-voting)
  - Mandatory Surveyor Advisory Board – Rules and Technical Issues
  - Adds CHRC to Surveyor License (new and renewals); due 2020
  - Education changes – Associates Degree
  - Possible exam migration to National PS Exam

86th Legislative Session (2019)

- HB1523 – TBPLS Sunset Bill
  - **GOALS:**
  - Effective and Efficient Merger
  - Two distinct and separate areas of practice / one agency
  - Optimize processes and services
  - Budget and staff scale

86th Legislative Session (2019)

- HB1523 – TBPLS Sunset Bill
  - TBPE and TBPLS staff officially merged
  - Attended TBPLS Board Meetings
  - Attending TSPS Meetings
  - Working on operations transfer teams and tasks
  - RPLS / LSLS exam continuity
  - Enforcement Cases
  - Licensing / Registration
  - December Renewals
  - Rules stay in place until changed / updated / merged. Process of drafting updated rules under way.

Outreach

Fiscal Year	Attendees	Presentations
2014	14,866	155
2015	19,751	150
2016	19,554	138
2017	23,054	144
2018	23,104	168
2019	26,216	154

- Monthly and Quarterly Webinars
- Face to Face Outreach
- Includes K-12 / E-Week

WEBINAR DOCUMENTATION

Documentation of attendance for Continuing Education purposes will be the follow up email from the Webinar system. No certificate will be issued.

If registered as a group, please keep and distribute a sign-in sheet for all attendees with the follow up email from the Webinar system.

Thank You

info@pels.Texas.gov
Phone: 512-440-7723